

USING THE AIR TO DIG.

HOW RAPID TRANSIT CONTRACTORS
WILL FACILITATE THEIR WORK.

Compressed air is to be an important factor in the construction of the Rapid Transit tunnel. It will be used in most of the sections of the work for hoisting and boring purposes. The exact mission of the compressed air is to transmit power from a large central plant through a feeding tube to where work is in operation. Such a system thus does away with a great number of small, smoking engines scattered along the route of the excavation. Holbrook, Cabot & Daly, the sub-contractors for that section of the tunnel which extends from Great Jones-st. to Thirty-third-st., have just installed such an air compressing plant at the northeast corner of Union Square. The plant consists of two huge air compressors, which resemble to a great degree two steam water pumps with horizontal cylinders. They are operated by a five hundred

horse power steam engine and are capable of sustaining an air pressure of one hundred pounds to the square inch. This is about two-thirds the pressure on the five steam boilers of the engine.

The air is forced out of the compressors into a large spherical receptacle resembling the air chamber of an hydraulic ram. The receiver is for the purpose of keeping an equable pressure, since if the air was transmitted directly from the compressors to the machinery it would come in intermittent puffs.

A 5-inch feed pipe is connected with the air receptacle, and extends from one end of this section of the tunnel to the other. The pipe is laid along the western gutter of Fourth-ave. from Thirty-third-st. to Great Jones-st., just below the surface of the pavement. The pipe has three stopcocks in every block, where connection can be made with boring and hoisting machinery.

Great difficulty was experienced in laying the pipe across Twenty-third-st. because of the network of conduits with which that thoroughfare is underlaid. As a consequence the pipe had to be carried west in Twenty-third-st. about one hundred yards, then across to the other side of the street, and back again to Fourth-ave. Henry B. Seaman, chief engineer of the work, in speaking of the air plant yesterday said:

"The installation of this compressed air system and the other preparations for its operation have cost about \$80,000. Of course, it was impracticable to use steam engines along the street wherever the excavation was carried on, because of the annoyance of smoke and steam to residents in the neighborhood. Again, it would have been greatly inconvenient to be compelled to move heavy boilers and engines continually. Air has been used instead of electricity because less dangerous and more thoroughly tried. Work on the tunnel will be confined to one side of the street at a time, and the excavation will be roofed over almost as fast as the work of digging goes on, so that never more than one-half of one side of the street will be left open. Above the route of the work, as can now be seen just north of Tenth-st., is stretched an overhead cable, along which are run the dumping shovels, thus carrying the dirt continually forward to dumping cars. To be sure, this work at Tenth-st. is now being operated by a steam engine, because the feed pipe for compressed air has not been laid this far south. As soon as the pipe is ready, however, the steam engine will be removed. The compressed air hoisting engines closely resemble steam engines, the chief differ-

ence being in the medium of power with which their piston rods are operated.

Pole derricks will also be used in addition to the cable derrick where circumstances permit, and the contractors are now constructing several with 40-foot booms, thus giving a swing of 80 feet. The direction of the work of excavation is always opposite to the slant of sewer pipes. The sewer is approached at its lowest part and its contents diverted with a new sewer laid along the edge of the street.

Yasaburo Endo and Juemon Ohara, ex-Member of Parliament of Tokio, Japan, special commissioners of the Japan Central Tea Association, better known as the Tea Guild, to the Paris Exposition, are now in this city. The Tea Guild is seriously concerned about

the future of the Japan tea trade. The increased cost of production is making it impossible for Japan to compete in the market. As the country becomes civilized laborers demand higher wages, and where coolies were getting 30 cents a day only a short time ago they are now demanding \$1. As a coolie picks only two or three pounds of tea a day, and as the same tea sells at 18 or 19 cents a pound, it is clear that under such conditions the trade would have to be carried on at a great loss.

The "Japan Times" speaks of "the marked decline which has overtaken the tea industry, especially commercially." It attributes this decline not only to the increased cost of production, but to the gradual exhaustion of the shrubs, the negligent method of curing and, lastly, to the want of cordial relations between the growers and the merchants. The market has remained almost stationary, compared with the condition prevailing prior to the outbreak of the Japan-China War. In point of fact, strictly considered, the business is no longer a paying one in Japan. At best it is an exceedingly precarious one, and of late it has been dealt a number of crushing blows.

The Japan trade is under a great disadvantage, compared with the China trade. In China the tea is burned, cured and packed in the gardens and when it reaches the port it is ready for shipment. In Japan, on the contrary, the tea is brought down the rivers like so much hay, and the merchants have to do the burning, curing and packing themselves. Land is expensive, yet large premises are required; hundreds of coolies must be employed to watch the tea while it is burning, and within the last three years packing materials—wood, lead and charcoal—have risen in price. In China these items do not interest the merchant.

The volume of Japan's trade with the United States is from 40,000,000 to 42,000,000 pounds a year. Japan tea is used chiefly in the West and Northwest. China tea, especially Formosa Oolong, is used almost exclusively in New-England. Japan tea has recently been driven out of an important market in England, where the product of the gardens of Englishmen in India and Ceylon is now largely sold. Two hundred and twenty million pounds of English grown tea were sold in England last year.

Attempts are being made in Japan to remedy the situation by amalgamating small growers, and thus reducing the cost of production. This is the case in particular at Shizuoka. The fact that the Shizuoka is in straits is important, because the town is the centre of the Japan tea industry, producing almost one-half of the entire crop. It has been necessary to import labor from Korea into Kyushu and Yava. Besides Japan tea, the United States uses a great deal of China green, Oolong, Congo, India and Ceylon tea, upon which the coun-

try would fall back if the Japan tea were to go out of consumption.

The use of tea has kept pace with the growth of population, although, according to dealers, it has not increased per capita. It has, indeed, lost some ground, owing to the increased use of coffee, which has fallen from 15 to 5 cents a pound. The attempt to grow tea in America has had no effect on the market. The growers are heavily subsidized by Congress, but, owing to the high cost of labor, the best they can do is to produce tea for 60 cents, which importers can match in body, taste and general worth with tea which costs only 14 cents. American tea is an imitation of that grown in India, and is kept from degenerating into catnip only with the greatest care. The fabulous prices sometimes paid for tea, as, for example, \$25 a pound for tea "stolen from the Emperor's garden," are the source of much amusement to merchants in this city. They say that tea to cost even \$4 or \$5 a pound would have to be grown on fairy islands.

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TOPICS IN CALIFORNIA.

TO BENEFIT STANFORD UNIVERSITY—
PACIFIC COMMERCIAL MUSEUM—
PLIGHT OF OPERA COMPANY.

[BY TELEGRAPH TO THE TRIBUNE.]
San Francisco, Sept. 29.—The Stanford University alumni and undergraduates will begin at once a novel attempt to influence public opinion at the coming election in favor of a constitutional amendment which will permit the university to accept gifts by will as well as by grant during life and property outside of the State as well as in California. The amendment also exempts the university site and buildings from taxation. Students will go to their homes just before Election Day, and by speeches and articles in their local newspapers will endeavor to secure votes for this amendment, which means so much to the university.

The Pacific Commercial Museum was organized this week by the election of Irving M. Scott, builder of the battleship Oregon, as president. Two vice-presidents and a large advisory board will be selected at a future meeting. The merchants showed great enthusiasm, and the museum is regarded as an assured success.

The greed of fire insurance underwriters has cost them \$95,000 in commissions on \$4,000,000 worth of prunes this season. The California Cured Fruit Association expected to get the same rates as in previous years, as the prunes are stored in warehouses until shipped to the East. But the underwriters fancied the fruit men would be compelled to insure, and so doubled the rates. The result was that the Fruit Association will do its own insurance and will expend \$10,000 for water supply and hire of additional watchmen to guard against fire.

Plans have been prepared by Superintendent Lynch of the Market Street Railway Company which will soon convert the cable railways west of Devisadero-st. into electric lines. If these plans are approved the Jackson, Sacramento, Clay and McAllister lines beyond Devisadero-st. will be run by electricity. This district is fairly level, and no trouble is anticipated in the use of electric traction.

John M. Chriten, once a prominent Bohemian Club man and a lawyer and politician, was convicted this week of procuring the forgery of a document by which a spurious heir to a local estate proved his claim and obtained the money. The only defence was a legal technicality. Chriten a few years ago acted as counsel for all the big Eastern theatrical managers, and had a practical monopoly of theatrical litigation, but his crooked methods lost him this as well as other business. He was expelled from the Bohemian Club for introducing professional card sharps, and lately had been exposed in several shady transactions. He will probably go to State Prison for a long time.

Alfred Tobin, son of the late Richard Tobin, died this week from pneumonia. He was a director of the Hibernia Bank, and for years had been associated with his brother, Joseph S. Tobin, in the law firm which was counsel for the bank.

The death of Collector of the Port John P. Jackson removed one of the best known public men of the State. Jackson was a fellow law student with ex-President Harrison in Bellamy Storer's office, in Cincinnati, served through the Civil War, came to California in 1867, was identified with early railroad building, and later with journalism. He served as United States Treasurer under President Harrison, and was named as Collector of the Port by President McKinley.

Nothing noteworthy was produced at any of the theatres this week. The Azzali Grand Opera Company has furnished much amusement by its vagaries. It was billed for three weeks ago at the California Theatre, but was delayed in its departure from Jamaica, and did not reach here till last Monday, when it was discovered that the opera scores had been left in a Mexican custom house. The manager requested the loan of

B. Altman & Co. 18th Street, 19th Street,
6th Avenue, New York.

Announce that their selections for the AUTUMN and WINTER seasons are now fully represented in their various departments. Among them are:

Novelties in Silks, Satins and Crepes,

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AFTERNOON AND EVENING DRESSES,

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FUR GARMENTS, FURS, ETC.

B. Altman & Co. invite attention to their

SUPERB LACES and LACE ROBES, in Lace with Silver, Gold and Painted effects in reserved designs not heretofore shown.

EXAMPLES EXHIBITED IN WINDOWS.

REAL LACES: Point, Duchesse and Applique will be offered on

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just opened include the most approved Straight Front models of The FASSO CORSET, Straight Front Ribbon Corsets and "The Negligée."

On Monday and Tuesday, October 1st and 2d, a number of beautiful models (duplicates of those shown at the present Exposition at Paris) will be displayed on Second Floor.

New-Jersey Advertisements.

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We Will Not Be Undersold. Money Returned if Article Was Lower Priced Elsewhere on the Day You Bought It.

Hints to Housekeepers and those who will go to House-keeping.

Brass and Iron Beds.



We have a vast assortment of Brass and Iron Beds—double, yes, treble that of any other house in the State—and we control the sale here of all the best makes. Our figures are lowest because we bought in advance of the uplifting of the price of metal:—

Full size Brass Beds, finished in best gold lacquer, 5 ft. 2 in. high, 1 1/2 inch posts, 3/8-inch filling rods, extension swell foot end, trimmed with heavy 18.98 husks and vases, \$35.00 value for

White Enamel Iron Bed, any size, head end 4 ft. 7 in. high, 1-inch posts, close filling rods, extension foot end, brass mounts, \$4.50 value, for 2.69

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Don't waste time with small stocks, but come here and make choice from a great one. Curtains, Portieres, Curtain Goods, Poles, Fixtures, Fancy Wood Work, Grills, Window Shades, etc., are here for your inspection. PRICES ARE ALL RIGHT.

Renaissance Lace, 4.98 to 75.00. White Irish Point Lace, 2.50 to 35.00. Ruffled Net, 1.50 to 12.00. Brussels Lace, 4.75 to 75.00. Nottingham Lace, 50c. to 9.00. Ruffled Muslin, plain and fringed centres, 75c. to 2.50.

NOTE—Drop a postal or telephone us, 798, and we will send a representative to take measurements and submit estimates.

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Never so great and handsome a stock of Floor Coverings seen in New Jersey. Our prices are below those of the New York stores. Royal Wilton Carpets, a leading manufacturer's entire line to select from, at 2.50 per yard.

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Savonnerie Carpets, an elegant high pile plush carpet for parlor use, at 1.45 per yard.

Extra Axminster Carpets, large variety, handsome styles, at 1.10 per yard.

Saxony Axminster Carpets, in beautiful designs and colors, at 95c. per yard.

Velvet Carpets, all wool face, 3 leading mills, plenty variety for selection, at 95c. per yard.

Tapestry Brussels Carpets, Stinson, Smith and Sanford's best quality 10-wire carpets, 200 patterns to select from, at 75c., 79c., 85c. per yard.

Other Tapestry Brussels at 69c., 50c., 49c. per yard.

Rugs, Linoleums, Oil Cloths, Matting, Art Squares, etc., in great variety. Measurements taken and estimates submitted on application.

Free Deliveries in Greater New York and at New Jersey Railroad Stations.—Hahne & Co., Newark, N. J.

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Plain and Novelty Fabrics for Hangings, Draperies, Furniture and Wall Coverings.

Embroidered French Velour, Corded Moiré and Silk Armure Portières.

Point Arabe and Renaissance Lace Long and Sash Curtains and Bed Sets.

Brussels and Colbert Lace and Colored Madras Curtains.

"Stores Bonne Femme,"

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PERSIAN, INDIA AND TURKISH RUGS.

ART OBJECTS and BRIC-A-BRAC

For Drawing Rooms, Libraries and Halls; particularly suitable for Wedding or Anniversary Gifts.

Bronze and Marble Statuary, Clocks and Mantel Sets, Candelabras, Large Hall Clocks, Bric-a-Brac Cabinets and Art Furniture.

Lamps, Dutch Silver, Enamels, Miniatures, Etc.

Eighteenth Street, Nineteenth Street and Sixth Avenue.

THE INJURED TORPEDO BOAT DUPONT.

Showing the tenderness of these craft.

any extent, as there was no distortion behind the bow compartment. Immediately after the accident she was examined by the Herreshoffs, who estimated that she could be made as good as new in three or four weeks for about \$8,000. As there was no particular hurry for the vessel, several craft of her type being available to replace her for station uses, and as the New-York yard was not overrun with work at the time, she was sent down the Sound and carefully surveyed in dock on June 15, resulting in a recommendation to cut away the damaged bow and build a new one at a cost of \$2,400 in thirty working days.

This work has now been completed so cleverly that it is practically impossible to detect the joining of the old and new plating. As might be inferred from the appearance of the injured Dupont, the plates forming her "skin" are little thicker than the ordinary galvanized iron of commerce, such as that used for cornices of buildings and for stamped utensils. The keel is built up of angle strips one-quarter of an inch thick, the side plates amidships are of three-quarter-inch stuff, and those of the bow and stern are only one-eighth of an inch thick. It is on account of this thinness of skin and general structural tenderness that torpedo boats must be hauled out of the water altogether in latitudes where ice forms.

scores from the Tivoli Opera House, which is giving a season of Italian opera, but the Tivoli did not see its way clear to aid its unfortunate rival. Finally "Aida" is announced for the opening to-night.

The Editor of "The Daily Californian," the student paper at the State University, caused a sensation this week by an editorial in which he called on the better class of students to put an end to the drunken and unseemly behavior of undergraduates in public places. He gave no names, but recited the facts of a recent case in which drunken students had insulted two women in a streetcar and then worried Chinese.

One of the prettiest weddings for many months was the marriage of Miss Helen Hopkins and Augustus Taylor, at the home of the bride's father, Edward W. Hopkins, at Menlo Park. The house was beautifully decorated, and breakfast was served in the tennis court, which had been transformed by palms and roses.

A NEW LAW FIRM.

One of the new law firms is that of Truax, Watson & Roberts, with offices at No. 141 Broadway. Arthur D. Truax is the son of Justice Truax, of the Supreme Court, and Edwin A. Watson has been the Justice's private clerk for several years.